CATJ

AUTHOR's

GUIDE

"... a set of suggestions and guidelines to assist you in preparing material for publication in CATJ - the Community Antenna Television Journal..."

prepared by Bob Cooper, Jr.
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Who May Write For CATJ?

Virtually anyone with information, expertise, theory or experience(s) relating to the community antenna television industry or satellite communications as that subject pertains to CATV systems.

In the past a very high percentage of CATJ published material has been created by our editorial staff. We employ a fulltime writing staff plus we augment this with 'contributing editors' who have some special area of expertise. Over the course of more than six years of publication we have, however, accepted for publication material from outside the confines of our staff from more than 50 authors.

With the maturing of the cable television industry there has been a gradual increase in acceptance of 'outside material'. More and more cable people and cable supplier firms have come to recognize that being 'published' is a very good way to maintain both a high visibility level within the industry and to introduce to the industry some particular new concept or approach to some aspect of our business.

In more than 60 published issues of CATJ, we have developed a very high standard for editorial integrity. We believe this is one of the major reasons that CATJ has stood out 'beyond comparison' against all competition. With few or even any exceptions CATJ has not been 'used' by commercial interests to foster the promotion of some particular product line. We would like to explain why this is an important 'plus' to the industry:

1) When a publication dedicates itself to becoming a printing vehicle for the technical (or political) viewpoints of particular suppliers, both the publication and the industry suffers. A publication's reputation is a very fragile commodity. The reputation is the 'bottom line' with a publication; when all of the 'hype' and inflated circulation figures are stripped away, the general 'feeling' that the industry has about the integrity of a publication is the publication's primary asset.

   A publication that is held in moderate to low esteem by the reader(s) must depend upon 'hype' and continuous promotion to survive. It alienates many readers and many advertisers because in hyping the product it steps on commercial-interest toes constantly.

2) This invariably leads to the editorial pages of a publication being utilized as a 'tool' for the sale of advertising. When advertising is discounted at special rates, the advertising buyer naturally wonders whether he is getting 'the best deal'. How is he to be sure that someone else (perhaps a direct competitor) is not receiving an even lower advertising rate?

   "Perhaps" he thinks to himself "I can get some 'editorial space' out of the publication to 'augment my special advertising rate' ". It is human nature to want 'the best deal' and if editorial pages can be acquired for the promotion of a product or service it 'helps' soothe the space buyer's mind that he is, indeed, getting "the best deal".

By avoiding all of this sequence of events, CATJ has retained the freedom to exercise independent editorial judgement. We are not perfect in the exercise of editorial judgement, but at least we do apply the same consistent 'standards' to the editorial

content issue after issue and this is important.

Perhaps this suggests to you that if you are related to a company in the CATV industry that CATJ is not interested in hearing from you. Quite the contrary, we feel that because you have a particular area of technical (or service) expertise that you may be very well qualified to write for or contribute material to CATJ; with certain 'rules'. We'll look at what those rules are shortly.

Perhaps you have no commercial (supplier ties); you are a member of the industry as either a system employee, an MSO employee or as a consultant. Seemingly you would be free of 'commercial interest obligations' and that would qualify you to prepare material for CATJ with 'no questions asked'. On the surface this is true, but again, there are a set of rules which apply. We'll look at those separately.

The Commercial Interest Writer

What can you write about? Well let's see. You have a brand new gold plated double-duty Whammy about to come off the line and you'd like your company to be successful in the marketplace with the new product. Why not write a magazine article about it?

This kind of writing is generally called a "press" or "product release". It explains what the product is, and what it does. It leans heavily on specifications for the product, extolling the virtues of the product and through the whole 'piece' there is the subliminal message to "buy - buy - buy". That's fine. Write it up and send it along to: CATJ, Associate's Showcase Editor.

This is not a 'feature' article; it is an announcement about a product. We like them, and use them if they come from firms who are Associate Members of CATA. This manual is not about such writing. We figure you know how to do this without being told 'how'.

There is another approach to a new product, or service or concept. One which we do encourage you to submit if you follow certain guidelines which will insure that our editorial integrity is not compromised should be elect to publish your submission. They follow.

1) When a new product, service or concept is developed by your company, stand back from the product and ask yourself the following questions:

   a) Is the product (service, concept) really different?

   b) WHY is it different?

   c) IS it's difference meaningful to the end user; really?

   d) Can you document both the difference and the improvement to the user?

   e) Can you explain, in terms which the reader will understand, precisely a) why it is different, b) how it is different, c) what this means to the user?

2) Can you do this without mentioning the product itself by name, model number or brand(name)?

That's tough when you work for a company. You are probably wondering what possible value such an article would have to your company if you can't mention the product's name or its model number or even your own company!

Let's try on an example. A modulator. Your company has developed a new modulator which results in higher definition video pictures to the CATV subscriber. You have done this by carefully researching what it is in the video waveform which contributes to the 'sharpness' or 'cleaness' of the picture at the subscriber's set. And, you have determined that after exhaustive research that by very carefully controlling the lower sideband vestigial filter that you can 'enhance' the crispness of the picture dramatically.

NOW - how do you convey this message to the CATV system owner/operator/buyer? Well, you can hand it to the marketing people and they'll come up with a phamplet that cites specifications. They may even come up with a new catchword or two like "crispness contours" and some phrasing such as "vestigial sideband optimizing". You conduct a seminar for your sales people and crank up the advertisements.

Now put yourself in the shoes of the cable operator. He is not a video or modulator R and D engineer. Sooner or later he may actually SEE the system work at a trade show and he may then become convinced that you have a better product. But for the first six months to a year he is going to only see advertising and hear canned sales pitches. And he is not going to understand what it is you have done.

There's another approach.

The same engineers who developed the system have files filled with documentation data. They had to sell management that they do in fact have a better modulator. You would not have added the product to your line if they had not so convinced you. R and D selling you is no different than you selling the CATV market. It is simply a generation or two removed.

NOW - about getting into CATJ with the message. First of all, technology is what we are all about. The modulator does produce better looking pictures; you know that. Your R and D people, with their files filled with data? That's the why, and the who and the proof. In short, this answers our problem with your material.

So here is an outline for preparing such an editorial piece for CATJ:

ONE: Set out the problem. Improving the quality of the picture which the CATV subscriber sees. Describe how the basic modulator device works and point out (with documentation) how improper lower sideband filtering can actually degrade the picture the viewer sees.

TWO: Then describe what steps have been taken to rectify this 'problem'; and show and detail not only the theory of the improvement but enough of the detail so that the semi-technically-literate industry reader can 'identify' with what you are doing.

If you can demonstrate exactly how you've gone about correcting the problem, you'll leave the reader with an 'understanding' of your product. And a reader who understands

what you are doing is a 'friend' who is more apt to buy from you. Everyone has a natural reluctance to purchase something that they don't understand. It is just human nature.

Which brings us to the first, most obvious and perhaps most important reason why assigning somebody within your company to prepare such an article for CATJ should be standard operating practice:

> By explaining the details of your new product or service to the industry, you create an awareness for your product or service. This turns strangers into friends; CATV people identify with your product because they have read about it, in detail, and they know about it BEFORE you come to call to sell to them.

Such an article in CATJ differs widely from a product description or specification sheet because:

1) People who look at specification sheets are shopping, while ...

2) People who read a descriptive article in CATJ are relaxing, or attempting to broaden their knowledge of the industry.

Another way of saying this is:

3) People who read specification sheets and product brochures intently are on the defensive, mentally. They are looking for good and bad points in a product. They want to find weaknesses.

4) On the other hand, while reading CATJ they are receptive to new information, new knowledge and they are under no pressure to 'perform'.

In a nutshell, you catch the potential buyer in an entirely different attitude. Think about it.

OK - so if you are associated with a commercial supplier, you can see the value in writing material for the industry in CATJ. And perhaps now you also have new insight on the value of in-depth description of a new product or service, prepared so as to educate the reader. Not only will we not accept material that is written "like a product release" but even if we did accept it and publish it, your best interests would not be served because the reader would mentally 'shift gears' and put himself in a nit-picking defensive frame of mind. So it is really everyone's best interest we are concerned with here. Your's,the reader's, and of course our own.

Are there other reasons to write for CATJ, other than 'making friends' for your products or serviced and opening doors for salespeople?

Of course there are. And some of the best ones apply to the non-commercially connected writer as well. So we'll shift gears here.

Any CATJ Writer

Some of the best material we have ever run has come from people who work inside cable system operations. Hundreds of people recognize the name 'Bill Ellis'. He writes perhaps a half dozen articles a year for CATJ, primarily on microwave.

Ellis has established a name (and a reputation) within the industry as being a 'savvy guy' on CATV microwave. He is invited to speak at synposiums and conferences and his counsel is sought after. Exposure in CATJ doesn't hurt his 'image'.

Anyone who has a message for the industry, based upon experiences he has had or knowledge he has gained can 'feather his own nest' by building his image. Few people stay in one job for life and nothing looks better on a job resume than a list of articles you have written with attached copies of the articles. In many industries much more sophisticated than CATV, engineers are rated by how much they 'publish' or appear in print. CATV is growing up and one day this will be true in our industry as well. So simply stated, if you are an individual hopeful of improving your own job status and salary and position within the industry, one very effective way to enhance that stature is to write and 'be published'. Exposure helps your image and the better image people (i.e. potential employers) have of you, the more MONEY you command in the job market.

This applies to anyone in the industry, at any level; whether that be in management or technical operations of a system or an MSO, or, as an employee of a hardware (or software) supplier. Again, being published "opens doors" for you. It makes people feel they know you before they meet you and it makes them friends of yours even though they have never met you.

What To Write About?

The individual working for a supplier has it made; provided his company turns out enough new products each year. Three new innovative products ='s three good articles a year. It is that simple.

Suppose you work for a company that turns out less innovative products? Say F series connectors.

OK - how could you POSSIBLY write something of interest in an area like this?

Very simply. When was the last time you saw in print a complete guide to every type of F connector available, and, detailed step by step instructions for applying each of these connectors? Too tame you say? Not so. Have you ever stopped to consider that of the 55,000 or so people employed in this industry that around 22,000 of these are installers and techs who spend all day selecting and putting on F fittings? And, that the rate of turnover in this employment area is around 1.8 per year? That's 22,000 x 1.8 or 39,600 people that have to be trained in this mundane area each year alone! You don't think there is a waiting audience out there that would benefit from a very complete, thorough discussion (with good illustrations) on applying F fittings? Think again!

The same thing applies to everything used in cable. Power supplies (has anyone ever REALLY spelled out how to properly install a CATV line power supply???), lashing wire clamps, aluminum cable connectors. What about properly preparing aluminum cable for fittings? The pro's and con's of drip loops and the hardware to select to go around a pole? Underground techniques is a wide open subject; everything from hardware requirements and equipment requirements to techniques.

Just stop right here and say to yourself ...

"What do I know the MOST about in cable?".

That's a good place to start. The follow that up with:

"What sort of things do I do (or advise others on doing) every week (or day) which simply means that I know something about that subject?"

It is just that simple!!!

A listing of some much-need article topics appears as an appendix to this Author's Guide.

How To Prepare The Material?

Let's set out the ideal format first, and then we'll work down to less restrictive requirements:

1) Typed: If we have our druthers, everything we receive will be prepared on a typewriter. It will also:

   a) Be double spaced (that's an extra non-used line space between each typed line)

   b) Start in at least 1.25 inches from the left hand edge of the paper and stop around 1.25 inches from the right hand edge of the paper

   c) The name of the article and your name and the page number will appear on one line at the top of the page

      (i.e. Antennas/Cooper - page 6)

2) Drawings: Schematics, sketches, drawings will be done on standard 8-1/2 by 11 inch paper, on one side. They will be large enough that parts or small items are not packed into tight areas (i.e. they will have good definition and be legible) and if you are labeling parts use either standard parts designations (pF, Ufd, K for 1,000 and so on) or spell it out.

   a) Each drawing will be on its own sheet of paper, even if it is a simple drawing

   b) Each sheet will have the name of the article, your name and a page number, just like the manuscript typed copy

3) Photos: photo illustrations that accompany the article itself and which will appear in the body of the article should be black and white. They should also be ...

   a) Standard size (which is 5 inches long by 3.5 inches tall, but whatever 'standard' print size your drugstore or photo shop prepares is alright)

   b) Glossy (mat finish is a no-no)

   c) Numbered or labeled. However, do NOT write on the back of any photo with any type of 'marking pen'; the ink never really dries, it rubs off and if you are unlucky it will rub from the back of one photo to the front (photo side) of another. Instead, use a soft pencil (number 2 is OK) or a ballpoint pen being careful NOT to press too hard as this impresses through.

1) Number the photos in sequence and then include a sheet of paper with 'captions' (a description of what the photo shows) separately. Do not write captions on the back of the photos. Naturally the sheet of captions should have photo numbers that correspond with the typed captions.

d) If you have only color photos, we'll do our best. If you have a really outstanding color photo, it might be good FRONT COVER material. There is no rule that says CATJ has to create it's own front cover photos each month. However, color photos do not reproduce (generally) very well in black and white.

e) If you wish the photos returned, write your LAST name on the back along with the other information and print the word RETURN.

4) Shipping: The whole package of material should be placed into a sufficent large envelope so that the sheets of typed paper are not folded. The photos should be placed inside of a sub-envelope and labeled with your name and the name of the article. Mail it to:

Manuscript Editor
CATJ Magazine
Suite 106
4209 NW 23rd
Oklahoma City, Oklahoma
73107

Like we said, that is the ideal format for manuscripts. You may tire of the project before you get it into this 'polished' state and therefore we are reasonable. The subject matter is more important to us than the actual format we receive the material in so be guided accordingly. We've never received an article hand printed with lipstick on toilet paper accompanied by drawings prepared with Crayons on discarded shopping bags and out of focus Polaroid prints but if the material was really top notch we'd probably accept it that way.

(Please don't take that as a challenge!!!)

YEH - But Do You Pay Money?

Ooops.

Well, not as a regular procedure. We have in the past awarded editorial stipends to people who have created really fantastic material. Jerry Laufer for his 'Low Cost Everyman's Spectrum Analyzer', for example, was awarded a stipend.

We look at it this way. If you are doing an article on behalf of your company, they should be paying you for the time and effort and they should be grateful that you are willing to tackle the project; maybe even give you a raise.

On the other hand, if you are a cable person who isn't selling something (such as hardware or software) we feel that you probably have gained your special knowledge because somewhere's along the way the cable industry has been good to you. And you should be willing to re-pay some of that 'good to you' assistance by helping out others (such as newcomers) in their own development.

If all of this leaves you cool, call and talk with the editor. He's usually a pretty reasonable chap and perhaps something can be worked out.

KITS - A Special Category

Careful readers of CATJ will have noted that every few months we announce a new 'kit'. A kit, for the non-careful reader is a construction project for a piece of test equipment, a handy measurement tool, an amplifier or something exotic such as a satellite TV demodulator or an MDS converter.

When we publish an article that describes a construction project, and IF we feel the construction project has medium to wide appeal, we like to offer to CATJ readers a complete KIT OF PARTS to assemble the project on their own. If you are stuck off in Gillette, Wyoming and you get excited about building up something you see detailed in CATJ, we can assure you that finding the parts is a big pain in the rear end. Perhaps impossible.

OK - so let's assume you are a creative sort and you have developed some construction project gadget. It might be a tester for diodes or an adaptor to turn a TV set into a spectrum analyzer or a low cost do-it-yourself line amplifier.

You are thinking about writing it up as a project / article for CATJ. Let us help you decide to do this:

1) Call and talk to the editor before you start writing. Tell us what it is, what it does, and how much the parts cost you.

2) Then, if we give the go-ahead you can write it up and with the article you will submit the project itself to us for say two to three weeks. If we find, at the CATJ Lab, that it does everything you say it does and it is capable of being duplicated by others who have instructions, we'll agree with you to not only run the article but to also make it available as a kit from CATJ.

   a) When we do that, here's what you get:

      1) Depending upon the kit project and parts cost, we pay you a "Kit Royalty" of from 10 to 15% of the kit selling price.

      2) We source the parts, buy the parts, take the risk of overstocking the parts, package the kits, provide supplemental directions for assembly and test, take the orders, run the risks of buyer's checks bouncing, ship the kits and then stand ready to help the kit builder out of trouble when he turns the diodes around and can't make the thing work.

      3) We also promote the kit in CATJ, for as many months as it produces reasonable kit order response.

3) Can YOU make any money at this? Well, the 'Low Cost Spectrum Analyzer' amounted to 250 kits (and then we cut it off) at around $50 each. Our Mini-Wave microwave system has resulted in orders for around 190 systems to date at $187 each. Figure out the percentages yourself. With a 'winner' like the Mini-Wave you could put a 'couple of K' into your own pocket.

Interested? Just look around your own test bench or your shop. Isn't there a self-designed construction project tucked away someplace?

Synopsis

Every paper has an end result. This one is no exception.

The cable industry is maturing at a very rapid rate. More and more people are coming into our industry all of the time; growth is everywhere about us.

John Kennedy said it all:

> "Think not what my industry can do for me, but rather what I can do for my industry...".

Sorry about borrowing the line John.

CATJ Author's Guide

CATJ MAGAZINE
Suite 106, 4209 NW 23rd
Oklahoma City, Oklahoma
73107

(405) 947-7664

Appendix (A) - CATJ Article Subjects That Never Grow Old *

* - Or, have never been properly covered in print in the first place!

Antennas -

1) What special design considerations go into off-air antennas for local signals where levels are excellent but multi-path is a problem?

2) FM off-air antenna arrays - what are the best ways to design broadband, multiple direction FM off-air antenna arrays for a mixture of local and distant signals?

   a) Can you afford to pre-amp distant signals in the presence of local signals?

3) Multiple sites for distant signals - how do you go about designing two or more sites for distant signals when you wish to avoid seasonal signal variations?

   a) How do you tie the sites together and determine which signals to use at any given instant?

4) What can be done at or within the antenna array to minimize lighting damage to the array itself?

5) For EXTREME severe enviroments - how do you design very stout antennas and put them up to stay up to withstand very heavy icing and very heavy winds?

Headend Signal Processing

1) Are on-channel (strip) processing systems REALLY superior to heterodyne conversions in some situations? What situations and why?

2) UHF adjacent channel processing - how do you pull a distant desireable U against a one or two removed local U?

3) Routine maintenance on headend gear - what should be done, when and why? How do you do it?

4) Signal mixing/combining at the headend. What are the objectives, all of the possible ways to do it, and the advantages of each?

5) Protecting headend equipment against lighting and transient surges - what is the complete textbook on this?

6) Standby powering for the headend - why do you need it, when do you need it, and how should the system be designed?

7) Designing the headend rack mounting configuration - what are the objectives of planning a headend racking design, what are the problems and how do you avoid them?

8) FM processing - all of the pro's and con's to on-channel versus single channel processing with cost factors for each.

Plant Design and Operation

1) What is the current technology for trade offs between cable selection versus amplifier selection? Should include hard dollar comparisons and list pro's and con's of each approach.

2) Powering - a basic course in laying out CATV power supply locations as a function of getting the best utility from the power supply investment. Should include multiple examples of the right and wrong ways to do it.

3) Two-way systems - the latest 'from the field' experience and technology on making return bands below 50 MHz perform without ingress problems.

4) Dedicated studio/office return band links - when should you utilize a dedicated line to return locally originated programs to the headend, why and how?

5) Overhead plant construction techniques - what is the latest technology in building an aerial plant?

6) Underground construction techniques - a wide open field from planning to equipment selection to contracting, sub-contracting and doing the work yourself. Numerous articles need to be published on this general topic alone!

7) The basic house drop - how do you plan, put in and test a basic house drop? How long should it take, what safety precautions are involved, what problems might arise and how should the installer proceed when he has a problem to isolate the problem?

8) Plant AGC techniques - what are they, how do they work, what are the advantages and dis-advantages of each?

Test Equipment and Techniques

1) Sweep gear - how does it work, how do you use it, what can you tell with it? Should include frank discussion of common pitfalls of sweeping techniques, what they mean and how to avoid them.

2) Field strength surveys - all of the steps from selecting the proper equipment to run a field strength survey at a site to setting the equipment up, making the measurements, interpolating those measurements into a planning exercise to select appropriate antennas, tower height and pre-amplifier/filtering/trapping equipment.

3) Battery powered test equipment - what the user needs to know about battery characteristics, how he insures his batteries are operating properly and won't quite half way through the day, how to care for batteries.

Specialized Equipment

1) Subscriber converters - specific case histories of failures and repair techniques which the cable person can put to use in his own shop. Step by step trouble-shooting techniques and repair techniques.

2) Pay cable traps and decoders - how you test them for good or bad, what you do when one is found bad, whether you fix it or not and if you do, troubleshooting and repair techniques.